Report on the business visit to Australia of the delegation headed by Interim Secretary of the Ministry of Roads, Transport, Construction and Urban Development Mr J. Baterdene, sponsored by the World Bank

Within the framework of a World Bank project, representatives from different ministries of Mongolia completed a business visit to Australia designed to learn from the latter's mining operations. The visit lasted 22-30 November, 2008 and included visits to the city of Sydney, Mount Trolly mine, McGuire Generation Bayswater electrical power station, Varatah coal loading port, State Governor's Office in New South Wales and many other places.

Australia is a country that is quite advanced in mining, rich in natural resources such as aluminum, copper, diamonds, coal for energy, bitumious coal, industrial minerals like titan dioxides, salt, as well as iron and oil that are being extracted and exported to other countries. It has a population of 20.9 million, of which 60% live in south-eastern parts of the country. Australia has three levels of government, Federal, State and Local, with the top level being responsible for country wide matters, and lower layers for state and local affairs; it was said that this structuring might be causing some degree of bureaucracy.

State Governor's Offices have mining and infrastructure departments which oversee all related activities on their territory. They also carry out all infrastructure related planning and implementation.

The following is a highlight of some visits that have taken place during the visits:

1. During learning from operations of a railroad located in Western Australia's Pilbara region, we found that the construction of rail road infrastructure there is based on long term contracts with the central government. It's a 60-year contract, and the state and local governments are now trying to make changes to that contract.

Before going to other aspects of railroad operation, we got acquainted with safety procedures where it was pointed out by an employee that occurrences of bigger scale accidents and frequency of that happening has been increasing on this railroad. The railroad has 1200km in length, of which 170 km of parallel lines, with annual capacity to transport 220 million tons of iron ore. It is the biggest privately owned railroad in Australia and has fully automated control system. It allows maneuvering 28 wagons every day, uses locomotives of GE-9 series and heavy load capacity wagons. Locomotives are made in United States at General Electric; capacity of wagons is 105 tons. Considerable efforts are being made on the modernization of this railroad, including large investments by Rio Tinto. Stringent regulations on construction and maintenance of railroads are strictly followed there and there is strict government control in this area.

In light of increasing mining operations, an expansion of railroad network has become a priority. Western Australia is abundant in small iron reserves, and a slew of smaller scale mining companies carry out their operations there. Transportation issue represents a challenge for these companies, as privately owned companies in Pilbara region can refuse them the use of railroad, thus causing delays in product delivery and possible contract breaches by mining companies. This predicament forced them to approach the state government and even start court proceedings on these matters.

2. The first thing done upon the visit to the coal mining facility was an introduction into safety procedures and it seemed that these kind of approach (mandatory safety instructions to any visitors to a mining facility) can be introduced at our mines as well. Environmentally friendly technologies were adopted by this mine and reuse of water used for coal washing was also in place. There is a total output of 90 million tons of coal from 3 mines, and they possess three kinds of authorizations: one for mining exploitation, one for environment and one for use of explosives. Apart from these, these is a need for 4-5 more authorizations, related to such areas as water, radio active substances

etc. They have a 24 hour operation, over 700 employees, 400 of which on payroll and the rest are contracted. There are three big ports in this area, in terms of infrastructure auto and railroad networks are satisfactory. There is an estimated 40 year coal reserve at the open mine, with an averages thickness of 2 m, 6.5m the highest. Seven heavy capacity excavators are positioned there; the cost of extracted coal is 45 AUD per ton, adding overhead and transportation costs it reaches 50AUD. They are able to provide their consumers with 80 different variations of coal.

The mine enters into contract with railroad companies, Pacific National and Queensland companies in this case, in order to carry out transportation of its products. Railroad network is under state control, and private companies go into agreements with state companies, such as agreeing to carry loads of no less than 60 wagons per day. Wagon capacities average at 106 tons, with 35 tons of its own weight, and each chain is composed of 80 or so wagons. Thanks to the fact that the State Government conducts environmental checks 3 times a year, area around the mine was quite well restored. In a very close proximity, there was a flourishing vineyard and it was a home to some well known Australian wine makers.

It seems important that we cooperate with technologically advanced, world known companies that have high capital capacity, massive expertise, and try to solve infrastructure issues as part of the package..

3. In this same region, we visited Bayswater thermo electrical power station and had opportunity to look into its operation. This station uses 4x 660 мw turbo generator and has an annual capacity of 4640 mw. They employ around 240 people, and they have a fully automated operation system. Every year they mobilize 200 more workers to carry out capital maintenance. They've been in business for 20 years and intend to stay in business for 40 more years. As far the coal they use is concerned, they receive coal with 20-28% of moisture level and receive from any mine indiscriminately. They supply more than 90% of local energy output, and 15% of the state's energy.

4. There was a meeting with officials at State Governor's Office in the state of New South Wales, during which they mentioned that there is a foundation designed for infrastructure development. Big cities like Sydney, Melbourne, Canberra are all located in this state, and it is responsible for major share of gross domestic product output. As we know, Sydney is not only the state's capital city but also a major international port. The said foundation is in charge of all infrastructure related issues such as erection of facilities, transportation matters and combination transportation issues, land development issues etc. In the state, there was an increased interest on the part of private sector companies to invest and be involved in infrastructure projects, especially during the last 20 years. As financial standings of the State have been rather good, it was managing financing major projects mainly on its own. Infrastructure utilization fall under responsibility of the Ministry of Transport, Railroad Authority, Auto road Authority, Water Authority. Projects currently underway are carried out by the state government, with 15% of private sector investments and the balance coming from state sector financing. It was evident that a lot of emphasis is given to the question of linking different aspects of infrastructure, and from what we could see current liaison between the types was quite impressive.

5. The visit to Waratah coal transportation and exportation facility was most interesting. We had a chance to see first-hand how transportation logistics network is implemented and operated. It was quite exciting to see how the three way (mine-railroad-port) operation is streamlined through the proper use of effective logistical system, and we couldn't help feeling, and I would like to express that again, that there is a lot of useful things that can be learned from their experience. The biggest coal exporting port facility Waratah, which is itself a part of Newcastle port, consists of Carrington and Corrigan sections. This port is considered one of the largest in the world in terms of coal exporting capacity, and it expects the total number for 2008 to be 95 million tons. Annual capacity for the port is 102 tons, with Carrington's capacity of 25 million tons and Kuragang 77 million. They exported a total of 84.8 million tons in 2007. The port has 420 full-time employees, 350 onsite contractors, and has a 24 hour operation. As for the equipment used, Carrington terminal has 2 facilities for railroad transported coal mounts, 4 expanded cranes, 4 conveyor belt unloading machines, 2 cranes for

vessel loading. Kuragang terminal, on the other, hand, has 3 facilities for railroad transported coal mounts, 5 expanded cranes, 3 conveyor belt unloading machines, 3 cranes for vessel loading. Most notably, the port strives to use environmentally friendly technologies and it has a fully automated operation control system. Ownership of the ports is as follows: 37% owned by Newcastle coal transportation companies, 30% by Coal & Allied Co., 3% Bloomfield Collieries, 18% by a Japanese trading firm, 7% by a Japanese steel factory, 5% by a Japanese energy and cement manufacturing company. Out of 55 mines operation in Newcastle area, 27 are open mines.

The operation of Waratah coal exporting port is founded on the tight logistical coordination between mines- coal loading points-railroad transportation-coal terminal-port.

6. A meeting took place in Perth with officials from the industrial and mining reserve department. This Department is made of 5 divisions, which are: strategic development division, industrial development division, division of mining reserves, support and operations division and monitoring division. The Industrial Development Division is in charge of such aspects of the economy as natural resources, infrastructure, state and privately owned mining companies, agricultural product output and food manufacturing. State government jurisdiction covers territories outlined by barrier of 5 km from the sea shore, and it oversees all mining and alike activities within that outlined territory, including exploration, exploitation rights, or infrastructure related projects. Taxation for use of reserves and notable policies in this regard: in order to facilitate companies' profitable operation during their start up years, certain tax exemptions are given for specified amounts of time. Usually, tax on use of reserves is 2.5-7.5% at deposits, and 2.5% on finished products. Since large number of companies with different ownership types operate simultaneously, they see a definite need for regulation in this area. For example, if a mining company expresses its wishes to build a rail road, it will be required to come up with an operation plan outlining the size of its operations annually, which in turn has to be agreed upon, and after that a contract is drawn between related parties, implementation of which will also be monitored. When building say a rail road, bidding announcement reaches all interested partied, and terms of reference bidding documents cover such aspects as rail road cost breakdown, tariffs, transportation corridor outlines, entry rights, entry rights for more than one road, environment protection etc.

The Federal government takes charge of strategic planning of infrastructure development, urban development and sets its developmental pathways. Urban development planning is done in close cooperation with state and local governments, but due to heavy use of private companies as executors of urban development projects, sometimes discrepancies with state and local plans occur. In such cases, the federal government intervenes and resolves any issues arising from such conflicts of interest. Over 250 mining companies operate in the country, and it is a wide spread practice that they create small to medium size urban developments at the site of their operation but later abandon or retreat from them when operation lifespan ends, leading to functional challenges at those places and high rates of unemployment

Urban development issues also touch upon another delicate aspect – protection of livelihoods of aborigines- it was noted that their interests are always taken into consideration when urban development projects are discussed.

For our country, especially in times of intensive mining activities, well thought out and implemented urban deployment policies are of utmost importance, since they provide basis for the right urbanization and industrialization process, and it should be carried out in correlation with state and aimag policies.

7. There was a meeting with officials from the National Competition Council of the Western Australia government. The committee has five members and it acts in the role of a state regulator.
It accepts requests from private companies and other interests parties alike to obtain authorization for right of entry and the use of infrastructure facilities for railroad transportation, for example, which it reviews and responds to. Main criteria they use in issuing authorizations building railroads are: 1st,

the use of railroad transportation facilities should not be profit oriented only, it should also take national/socio- economic development interests as the main priority; 2nd it should prohibit ineffectiveness/inefficiency, i.e. installing repetitive lines in the same direction; 3rd should environmentally sound project; 4th promote fair competition in railroad construction area; 5th should cost efficient in terms of the cost of transportation; 6th should meet safety requirements. In cases of any of these requirements not being met, or any claims from any stakeholders, the National Competition Council make its reviews and works towards resolution. When resolution can not be reached matters go to courts, and court decisions are considered final. In the framework of its consultancy services, the committee provides consulting services on right of entry to state and local level entities, uses outside consultants when needed.

In the case of our country, putting forward the abovementioned requirements when considering granting special permissions for new railroad construction seems appropriate, especially focusing on impact on existing infrastructure and operational forecasts.

8. We learned about the following situation at North West Alliance Group operating in Western Australia's iron ore mines. The group consists of 4 companies and it estimates to be able to export 52 million tons of iron ore annually by 2013. It considered very important to obtain right of entry to railroad system as well as the sea port. In view of these intentions, it approached the Australian government with a request to review its standing contracts with Rio Tinto and BHP Billiton on the construction and use of railroads and possibly include Alliance Group as the third counterpart. The government, and the National Competition Council, reviewed the request from the legal and other perspectives, and came back with a decision in October, 2008 to grant right of entry

Currently, there are 2 designated areas belonging to North West Alliance group. As for the sought after railroad, it hasn't been able to start building it due to large capital requirements of the project. Moreover, the state government has been reluctant in allowing this project to go ahead, on the grounds that this might be a case of federal mistake, creating danger of overlapping (with existing line). The lesson learnt from this experience is to analyze and study thoroughly before initiating these kinds of projects, said an employee of the group.

Looking at this experience, there is also a pressing need in Mongolia to conduct proper studies on basic infrastructure projects and coordinate wisely right of entry authorization issues.

9. Economic Regulatory Agency of Western Australia is in charge of overseeing any infrastructure monopolies created, of market control, regulation thereof, issuing licenses, carrying out inspections on government requests, fair trade and consumer interests issues. It adheres to principles of independency, transparency and acts as a consulting body. It is an independent agency, free from government pressure, its members are not appointed by any government, has a full legal and other capacity to carry out its tasks in a scientifically and logically sound manner. When talking about infrastructure monopolies, electric power, railroads, gas pipelines and water issues usually dominate. The Agency has three members, among which is a director, an economist and a lawyer. It has 6 subsidiaries, each of them taking care of as many as 40-50 different aspects of market operation. When issuing infrastructure related licenses, contracts, their terms, pricing policies are considered primarily, with objectives of achieving fair competition, flexible policies and favorable conditions for end users taken into consideration. Within the framework of their responsibilities is also South- west railroad network, urban railroad network and railroad facilities at Pilborouh iron ore mine. It does not oversees private railroad networks under the control of Rio Tinto and BHP Billiton, part of the reason being the fact government contract with these companies was signed in 1958 for the coming 60 years, so until that time is reached they are out of reach.

Western Australia's exports of iron ore in 2007 are as follows: to China 54.1%, to Japan 28.7%, to South Korea 11.2%, to Taiwan 4%, to Europe 1.8%, to other 0.1%.

Regarding new railroad construction in this region, policy orientation will leaning towards more government regulation, but it will based on principles of open entry.

Regulation of railroad system is something that needs to be done, but it normally takes long periods of time to achieve certain results. In Pillborough region, total distance from mining sites to ports is 260 km, and a project to put a railroad is underway, it will take around 18 months to finalize regulation issues relating to this project. For example, in the right of entry calculations there need to be used variable estimates for such parameters as upper and lower structure, blueprint of wagon structure, cost analysis etc. In general, Western Australia has a system of separate entries, and evidently designed to promote competition and independency.

In the case of Mongolia, there are currently no clearly defined legal provisions regarding right of entry to railroad infrastructure, the use of facilities. With the passage of 2007 Law on Railroad Transportation, railroad transportation market has become open to private and joint venture enterprises. So, since open competition is already taking hold on this market, it seems appropriate to make amendments to the existing law or issue relevant directives in order to accommodate the issues of right of entry to railroad infrastructure and the use thereof.

Conclusions:

Policy related issues that need resolving

1. In establishing base infrastructure in railroad system, it is important to address issues of right of entry grants properly, from the very beginning. It is therefore necessary to produce appropriate regulatory guidelines for proper entry to base infrastructure.
2. It is necessary to address infrastructure issues (construction of railroad infrastructure required for transportation of their products) at the same time as mining issues, as regards to Oyutolgoi and Tavantolgoi projects. World- known, technologically advanced companies will ensure construction of most efficient and technologically rational infrastructure facilities.
3. It is advisable to use consultancy services in regard to right of entry issues, and to pay special attention to future contracts between the government and private entities.
4. In urban development, it is important to foresee potential consequences of mining industry expansion, and to coordinate any policies with local aimag standpoints.
5. The three-way system of mine-railroad-port coordination needs to be studied thoroughly, most optimal logistical solutions need to studied closely with intention of introducing them here, and also these aspects need to be addressed in any future projects.

Implementation tasks

1. As safety issues are of paramount importance, it is going to be prioritized at all entities under the care of the Ministry of Roads, Transport, Construction and Urban Development
2. For the purpose of developing transport logistics system, a study is going to be done on the form of logistical network, its main components. Based on that study, a working group will be established which will work out a draft for the system in the near future.

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